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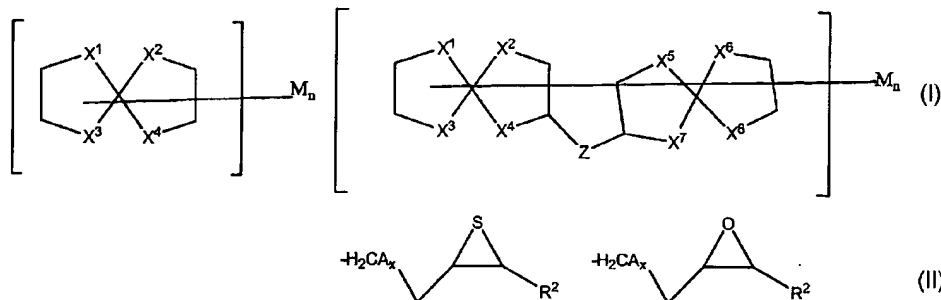
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(54) Title: SPIROTETRATHIOCARBAMATES AND SPIROOXOTHIOCARBAMATES



(57) Abstract: Spirotetrathiocarbamates (STOCs) or oxa substituted compounds (SOTOCs) of Formula I: Formula (I) or bisSTOC or bisSOTOC compounds of Formula II: Formula (II) wherein X<sup>1</sup>, X<sup>2</sup>, X<sup>3</sup>, X<sup>4</sup>, X<sup>5</sup>, X<sup>6</sup>, X<sup>7</sup>, and X<sup>8</sup> are independently O or S; and preferably at least two and up to all four of X<sup>1</sup>, X<sup>2</sup>, X<sup>3</sup> and X<sup>4</sup>, and at least two and up to all four of X<sup>5</sup>, X<sup>6</sup>, X<sup>7</sup>, and X<sup>8</sup> are sulfur; Z is -C<sub>m</sub>R<sub>2m</sub> wherein m = 1 to 4; -C(R<sup>2</sup>)<sub>2</sub>SC(R<sup>2</sup>)<sub>2</sub>-, C(R<sup>2</sup>)<sub>2</sub>SSC(R<sup>2</sup>)<sub>2</sub>-, or -C(R<sup>2</sup>)<sub>2</sub>OC(R<sup>2</sup>)<sub>2</sub>-, n is from 0 to 4; M is selected from CH<sub>2</sub>C1, CH<sub>2</sub>SC(O)R<sup>1</sup>, CH<sub>2</sub>SC(S)R<sup>1</sup>, ClI<sub>2</sub>S(ClI<sub>2</sub>CH<sub>2</sub>S)qII wherein q is 0, 1 or 2; -CR<sup>2</sup>=CII<sub>2</sub>, -CII<sub>2</sub>OC(O)CR<sup>2</sup>=CII<sub>2</sub>, CII<sub>2</sub>N=C=S, CII<sub>2</sub>N=C=O, CII<sub>2</sub>NR<sup>2</sup>II, CH<sub>2</sub>OH, CH<sub>2</sub>SCH<sub>2</sub>CH<sub>2</sub>CR<sup>2</sup>=CH<sub>2</sub>, phenyl, C(R<sup>2</sup>) phenyl, furan, thiophene, halogen, C<sub>3</sub>-C<sub>6</sub> cycloalkyl, C<sub>3</sub>-C<sub>6</sub> heretocyclics, thiol, H, (III) or (IV) wherein A is S, O or phenyl; x is 0 or 1; R<sup>1</sup> is C<sub>1</sub>-C<sub>22</sub> alkyl; and R<sup>2</sup> is H or C<sub>1</sub>-C<sub>22</sub> alkyl have excellent optical properties. Methods for preparing these compositions and optical lenses prepared from the compounds are also provided.

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